

# Chemical Feed Additive to Fight Marek's Disease Reported

Discovery of a chemical compound that shows promise as a feed additive to reduce mortality and visceral lesions caused by Marek's disease in chickens has been reported by scientists from Merck & Co., Inc.

They said that the compound, called AUS, will have to undergo extensive field testing for further evaluation of its safety and efficacy before any marketing decisions can be made. Some field trials are already in progress.

In artificial infections with several strains of the herpes-type

virus that causes Marek's disease, AUS was effective at dose levels as low as 0.0002 per cent in the diet. The action of AUS in these tests proved to be primarily prophylactic; it prevented the symptoms of Marek's disease from developing in the chicken.

Dr. T. Y. Shen, Director of Chemical Research-Inflammation and Viral Disease of the Merck Sharp & Dohme Research Laboratories, traced the long history of discovery and described testing results in a paper presented at the annual

meeting of the American Chemical Society in Washington, D. C. on September 15.

A major contributor to the commercial development of a Marek's disease vaccine, Merck has been marketing its 'Dep-tavac-HVT' vaccine under license from the U. S. Department of Agriculture since March 1 this year.

Concurrently, however, the company has maintained a research program started in 1965 to find a chemical means of controlling the poultry disease that causes losses estimated as high as \$150 million a year.

In the course of this program, Merck scientists screened many known anti-virus and anti-tumor compounds and determined that none had protective action at non-toxic levels.

Other approaches turned out to be more productive. Tests with several hundred sulfanilamide derivatives showed that a number of them had some degree of activity against Marek's disease, but that this activity was in no way associated with their

anti-bacterial or anti-folic acid properties.

The research team next turned to dapsone, a sulfone compound used in treating human leprosy and bovine coccidiosis and streptococcal mastitis. A large number of dapsone analogues were synthesized and assayed to determine which showed maximum activity against

Marek's disease with minimum toxicity. It was from this phase of the program that AUS was developed.

Merck indicated that field trials are being conducted chiefly under broiler growing conditions. Chicks will be put on feed containing AUS from the outset and will remain on such feed throughout the growing period.

## New Federal Safety Law Is Described

A new federal occupational safety law concerns farmers, farm workers, and farm owners.

The Occupational Safety and Health Act of 1970, went into effect July 1, 1971.

Described as one of the most important pieces of legislation of its type ever passed, it provides that both employers and employees have separate but related responsibilities and rights with respect to achieving safe and healthful working conditions.

Attention should be directed to

a unique feature of the law requiring action by employers of all types, including farmers with hired help.

This is a provision for record-keeping. It requires that employers maintain and make available to the U.S. Department of Labor accurate records of work-related deaths, injuries and illnesses, except those requiring only minor first aid treatment.

Employers must also keep records of employe exposure to potentially toxic materials or harmful physical agents, and their employes must be notified of exposure to such toxic materials or harmful agents.

This latter provision is especially applicable to farmers applying dangerous pesticides in cropping operations

A booklet titled Record-Keeping Requirements Under the Williams-Steiger Occupational Safety Act of 1970 is available from regional offices of the U.S. Department of Labor. The address for the Middle Atlantic regional office serving Pennsylvania and adjacent states is as follows:

Joseph S. Perzella, Regional Director, U.S. Bureau of Labor Standards, Penn Square Building—Room 410, Juniper and Filbert Streets, Philadelphia, Pa. 19107 (Phone: (215) 597-4103).

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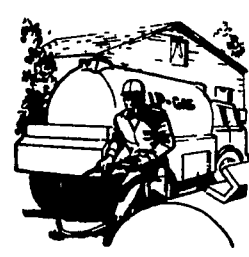
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